

The State of Wildlife Habitat in Massachusetts

What Does the Science Say? - Wildlife Habitat Research in
Massachusetts

David I. King

USDA Forest Service

Northern Research Station

University of Massachusetts Amherst

Amherst, MA 01003



Presentation scope



Presentation scope



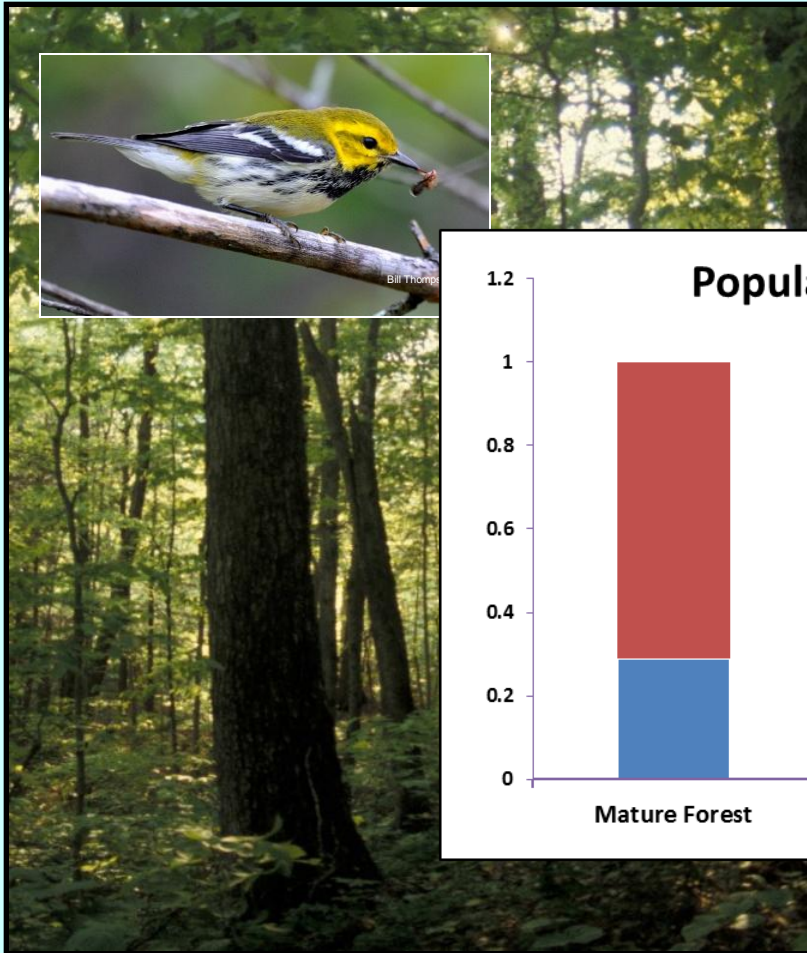
What does the science say?

- Which are priority species and habitats?

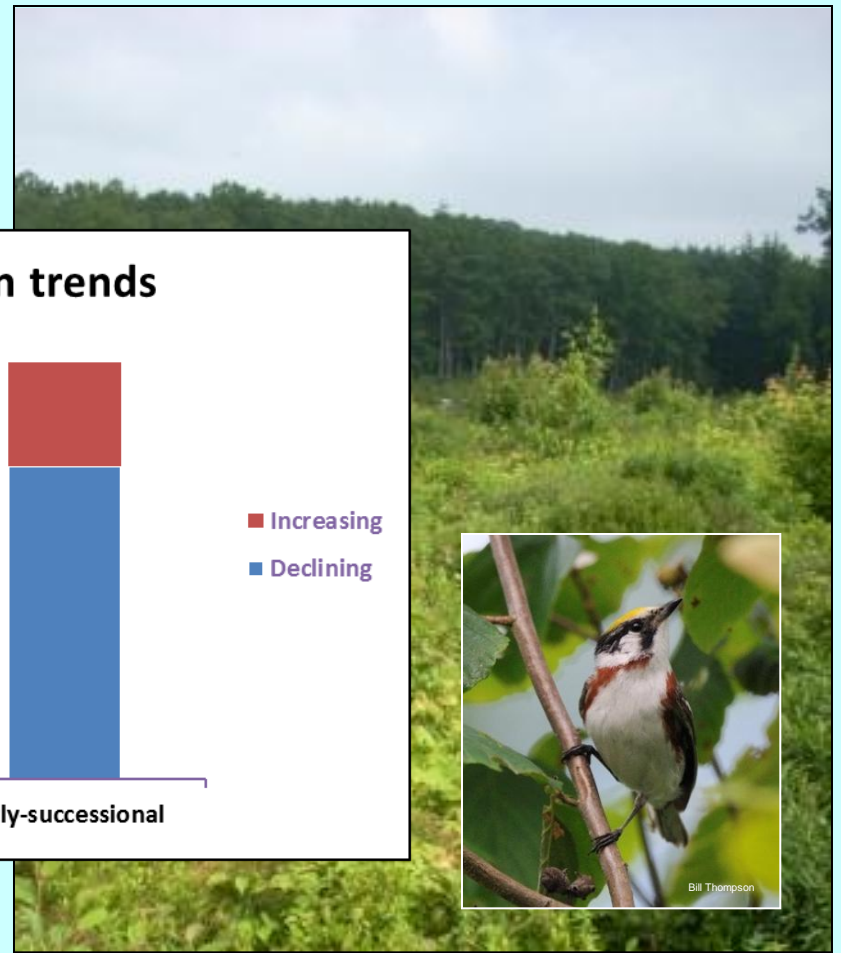
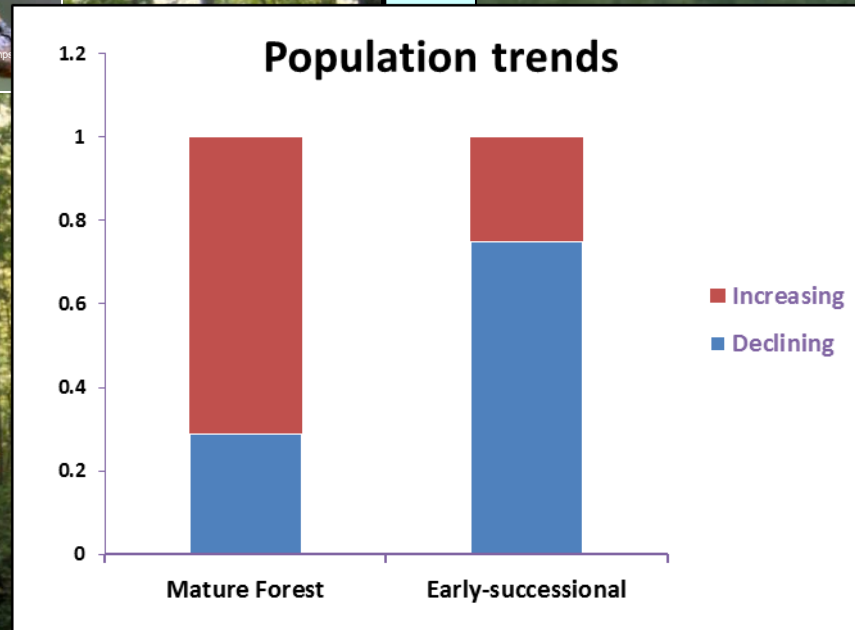
Presentation scope



Terrestrial birds

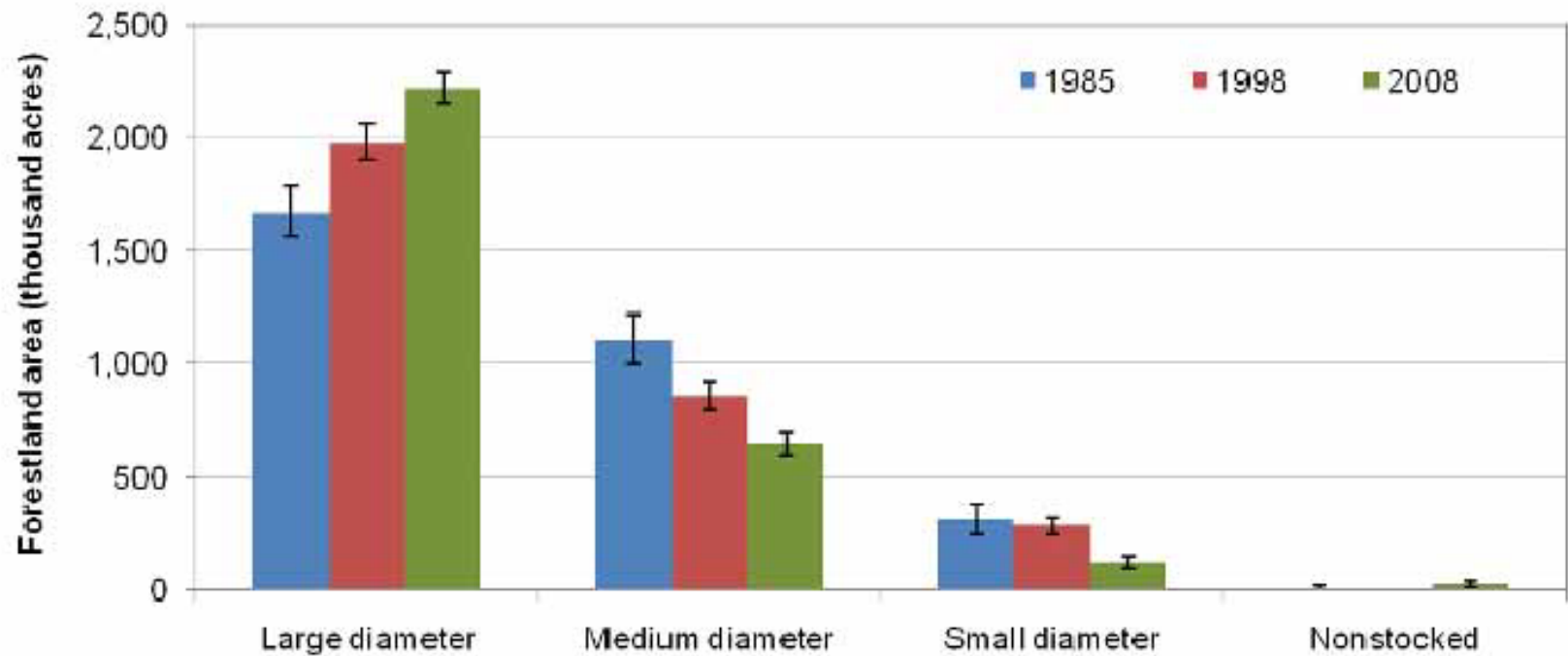


Mature Forest



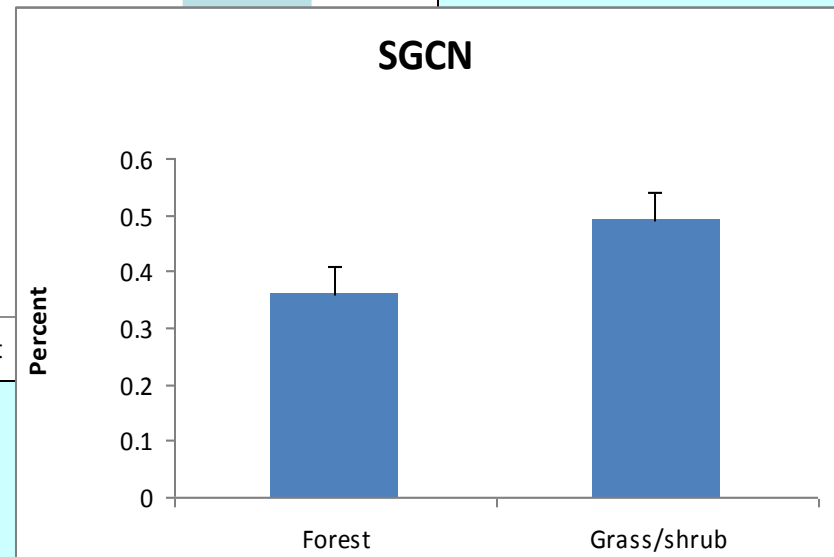
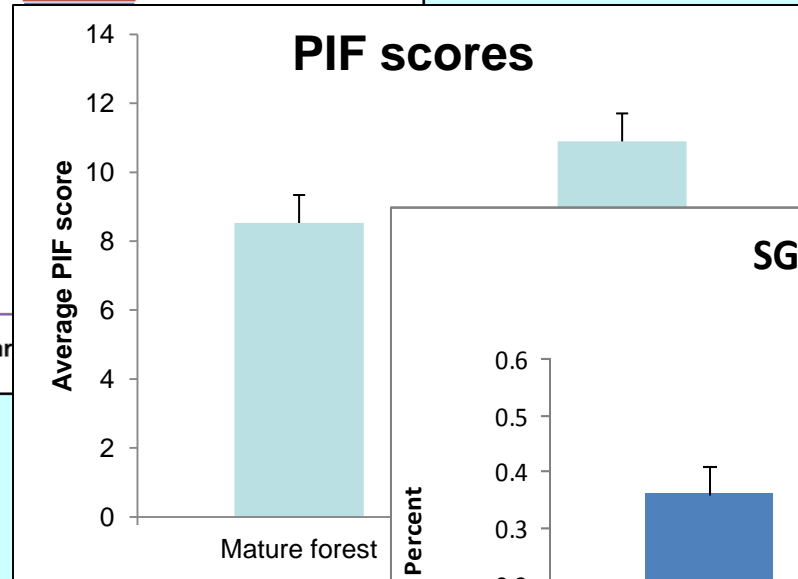
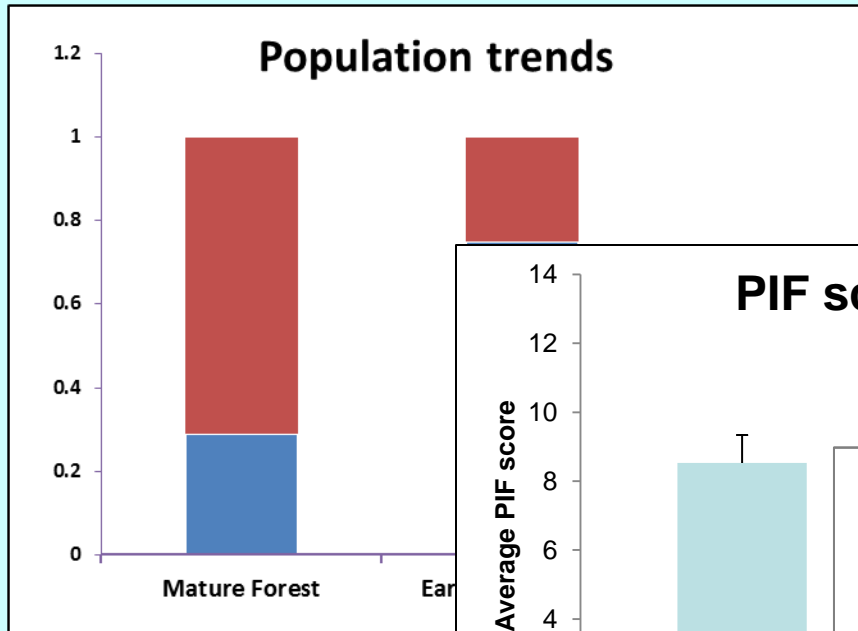
Shrubland

Massachusetts shrubland declining



USDA Forest Service FIA, 2008 in Crétaz, A., L.S. Fletcher, P.E. Gregory, W.R. VanDoren and P.K. Barten 2010.

Which are priority species and habitats?



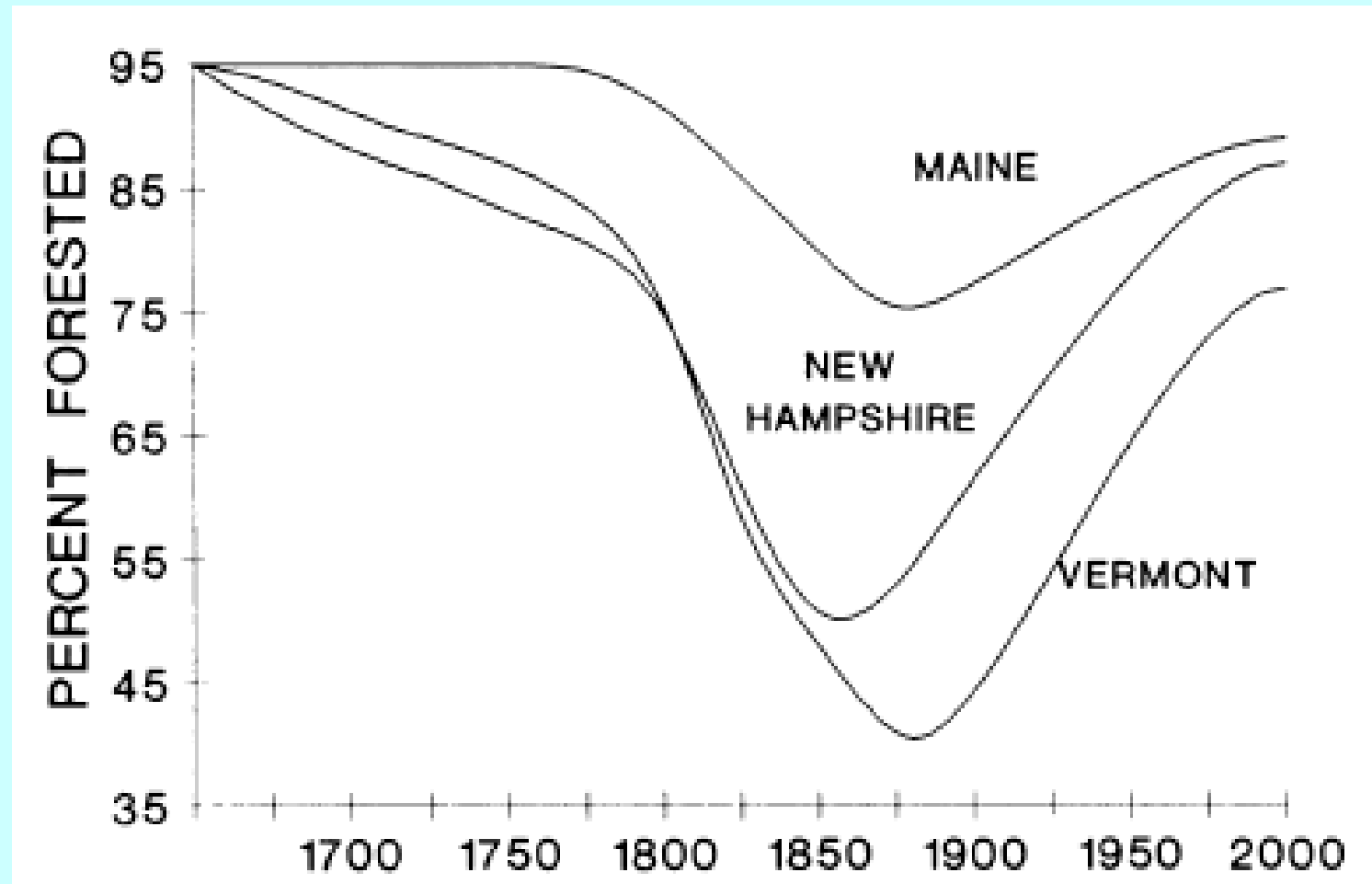
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- Examining the rationale for shrubland bird conservation

What does the science say?

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 - Are shrubland birds in the NE an historical artifact?

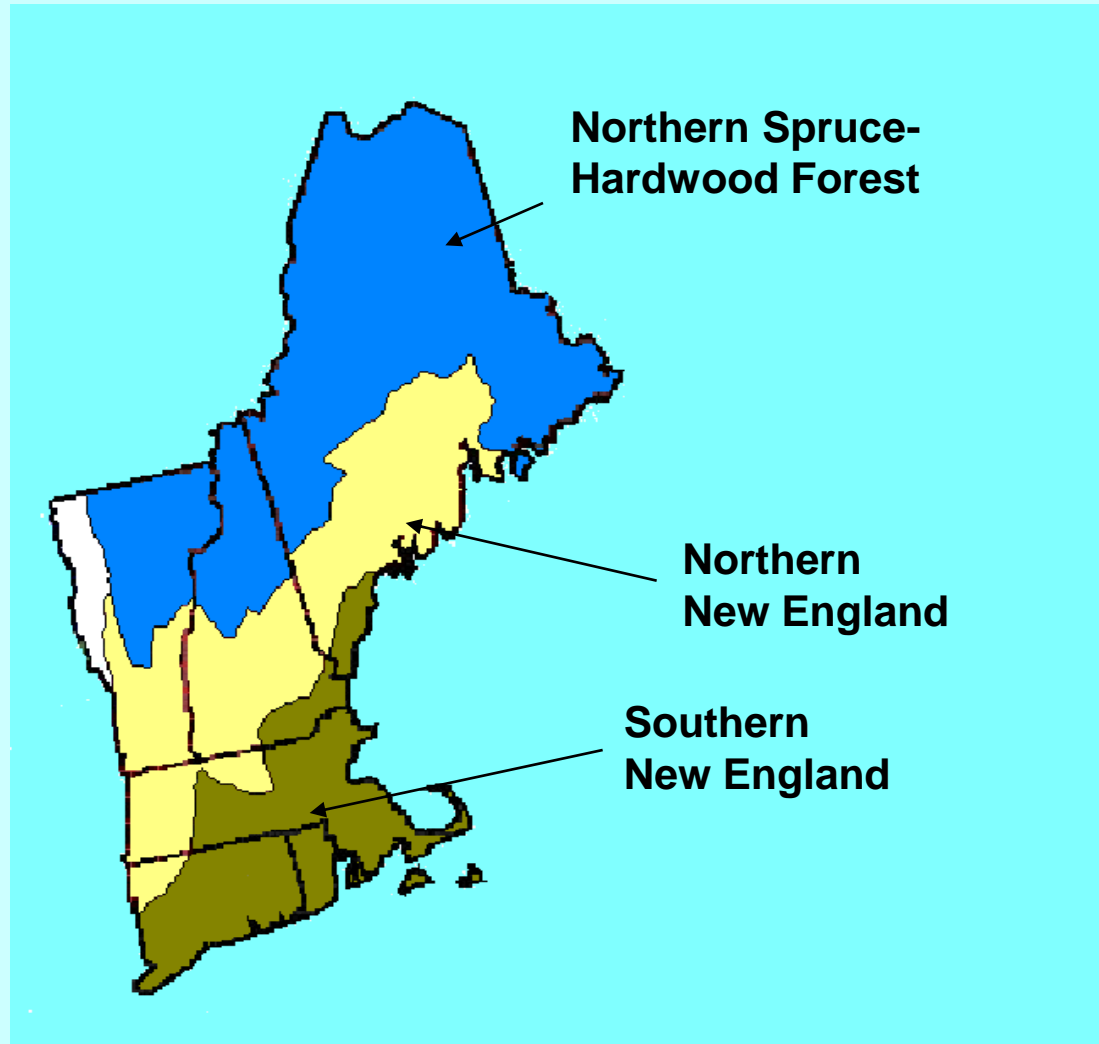
Shrubland birds in the NE are an historical artifact?



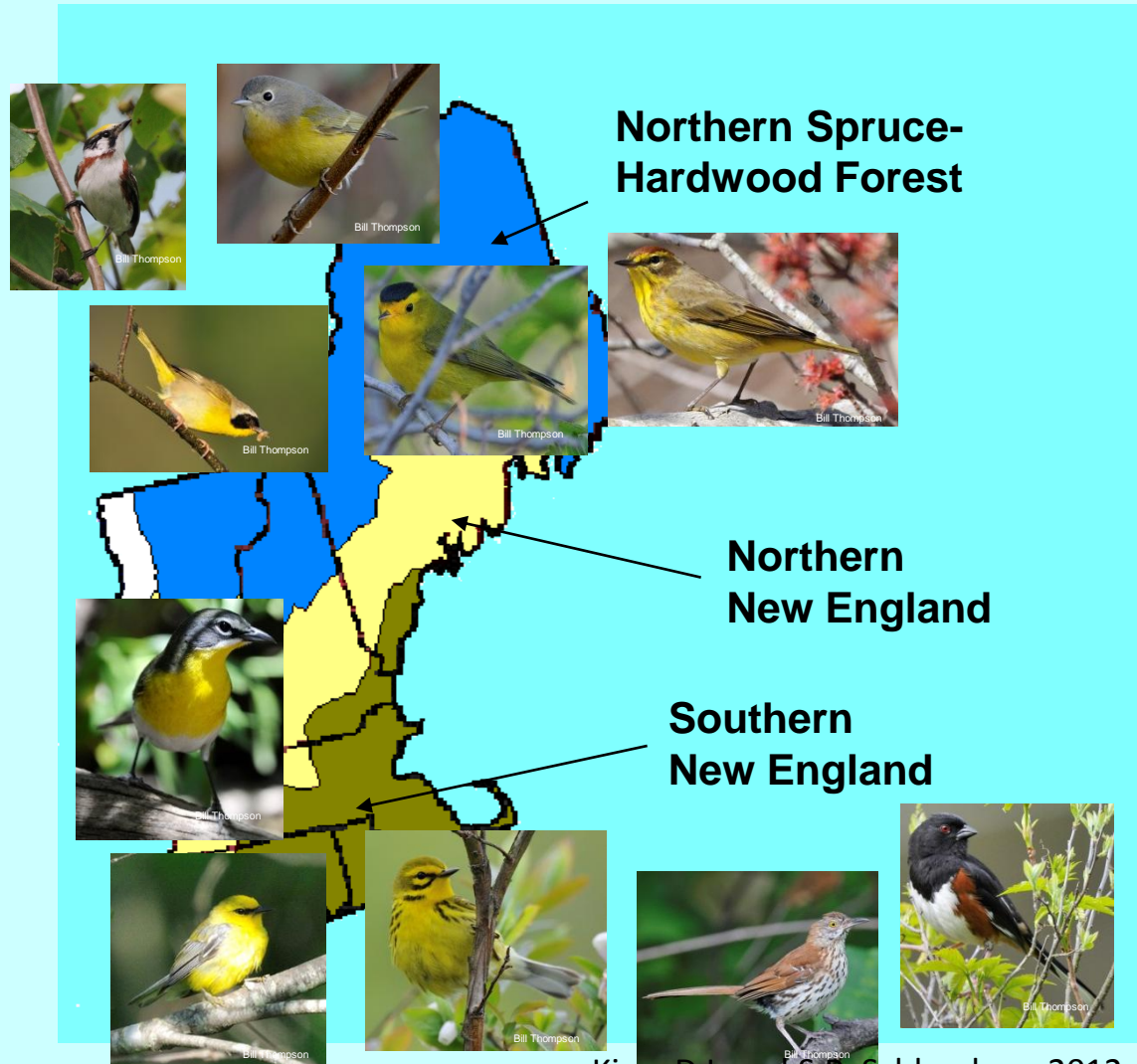
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- Examining the rationale for shrubland bird conservation
 - Are shrubland birds in the NE an historical artifact?
 - Are shrubland birds secure in other regions so management not needed in NE?

Are shrubland birds secure in other regions?

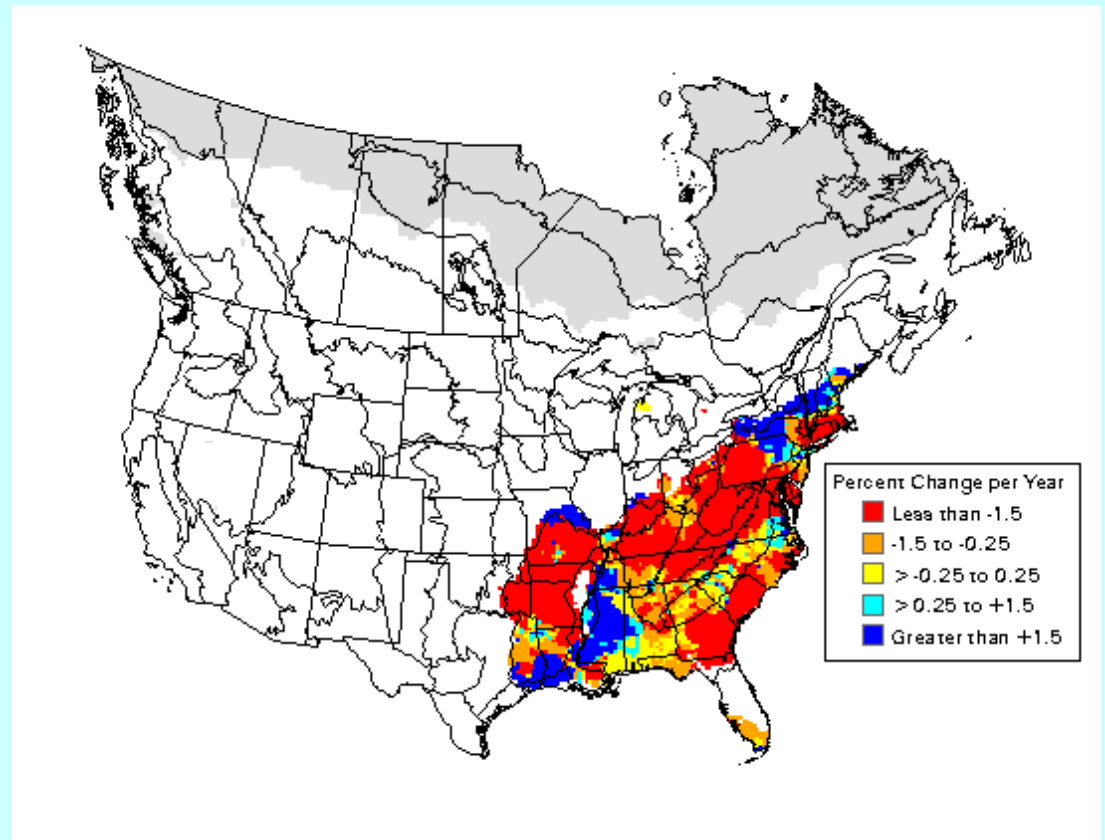


Are shrubland birds secure in other regions?



King, D.I. and S.R. Schlossberg 2012, CEAP Conservation Insight

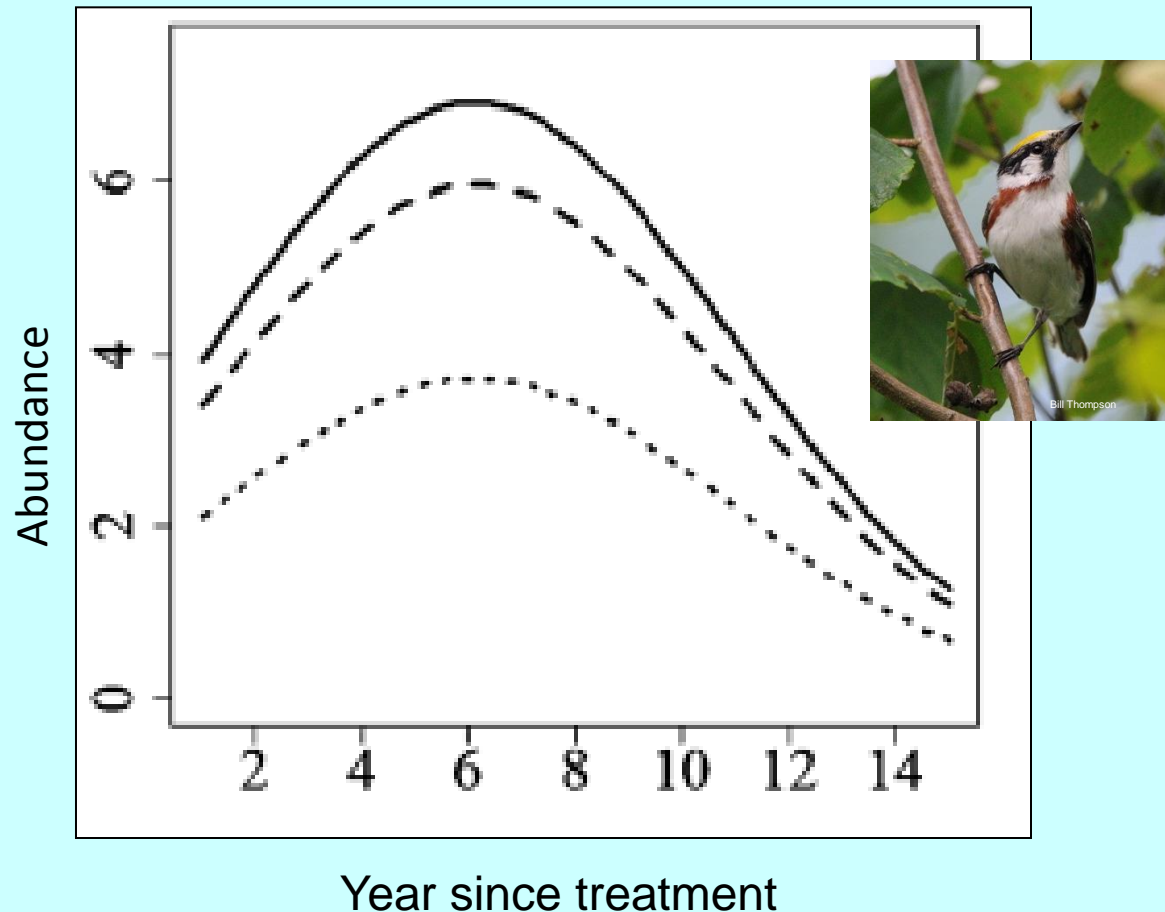
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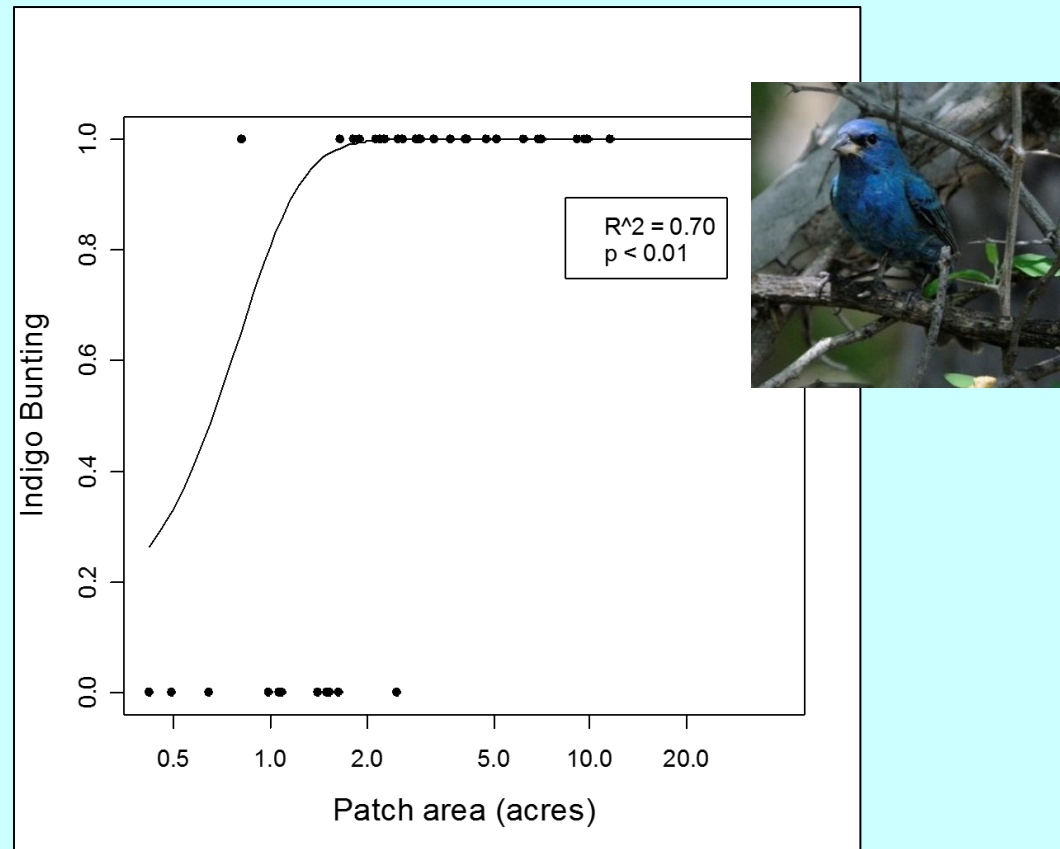
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Smetzer, J.S., D.I. King and S. Schlossberg. 2014. The Journal of Wildlife Management 78:314–324

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Chandler, R. B., D. I. King, C C. Chandler. 2009. Forest Ecology and Management 258:1669–1676

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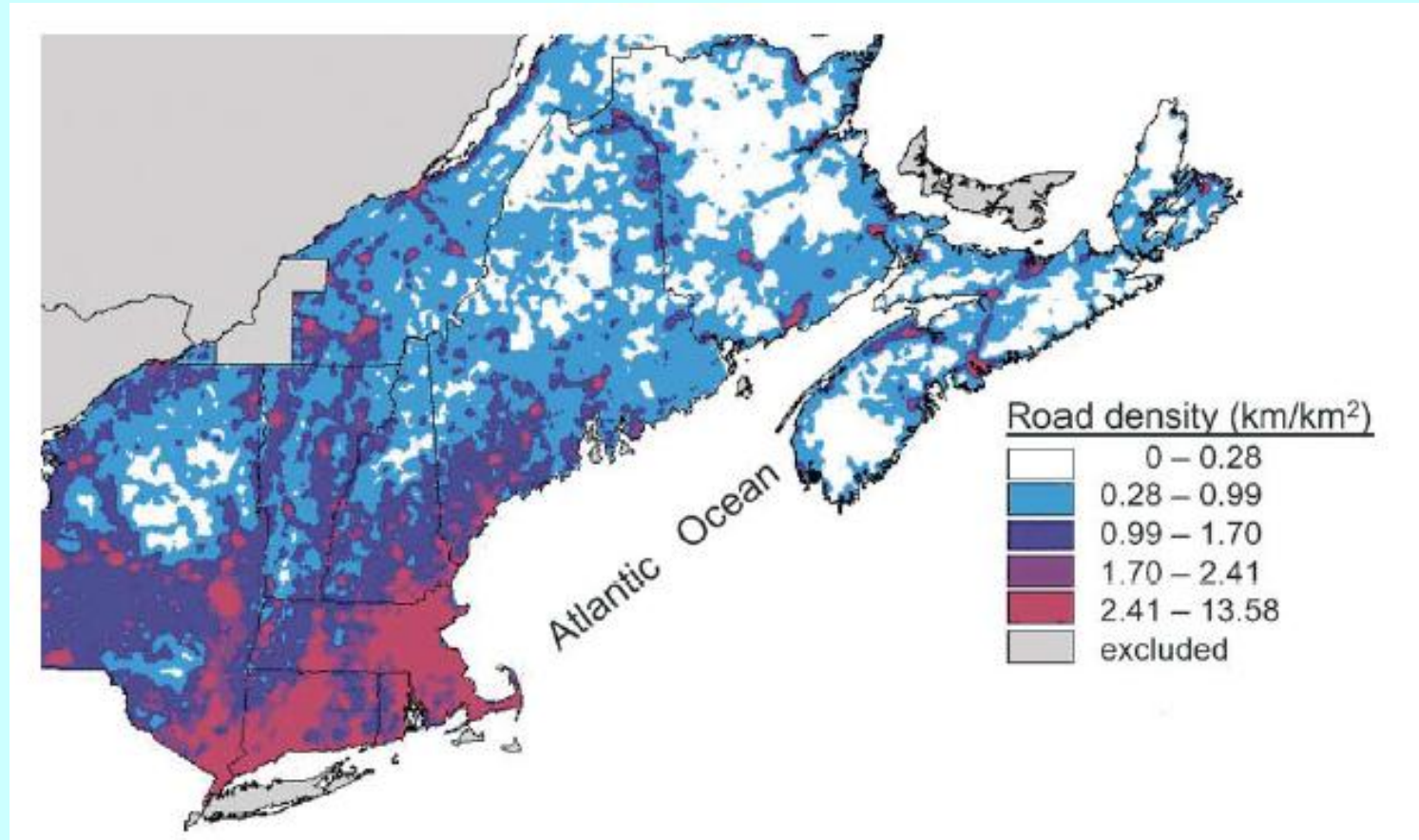
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 - Can natural disturbance support these species?

Natural disturbance



Boose, E.R., K.E. Chamberlin and D.R. Foster. 2001. *Ecological Monographs* 71:27–48; Lorimer, C.G. and A.S. White. 2003. *Forest Ecology and Management* 185:41–64

Development limits use of natural disturbance as model



Natural disturbance



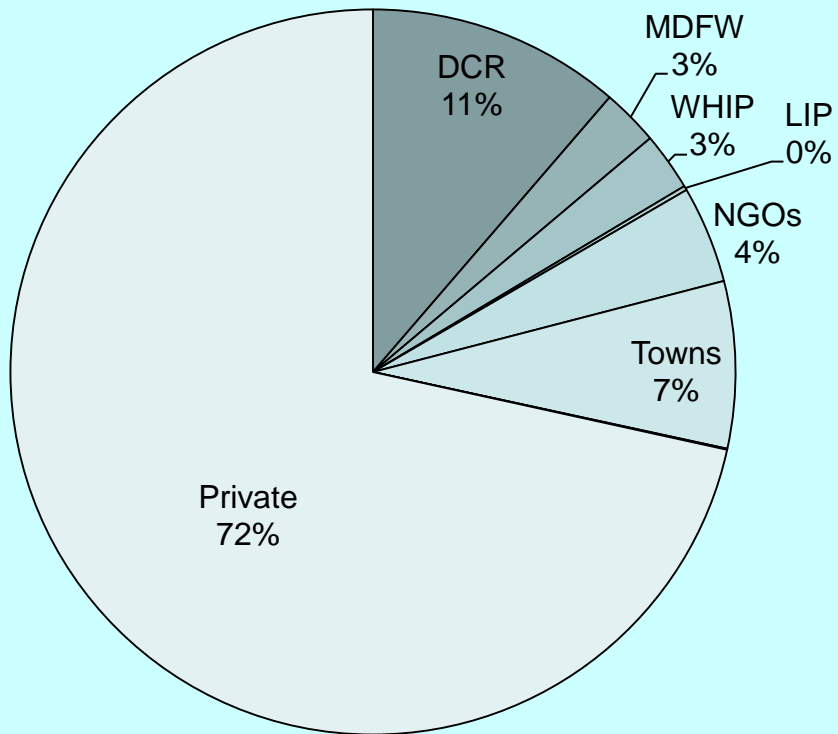
Chandler, R. B., King, D. I., and S. DeStefano. 2010. *Auk* 126:186–197

What does the science say?

- Which are priority species and habitats?
- Examining the rationale for shrubland bird conservation
- How important is deliberate management?

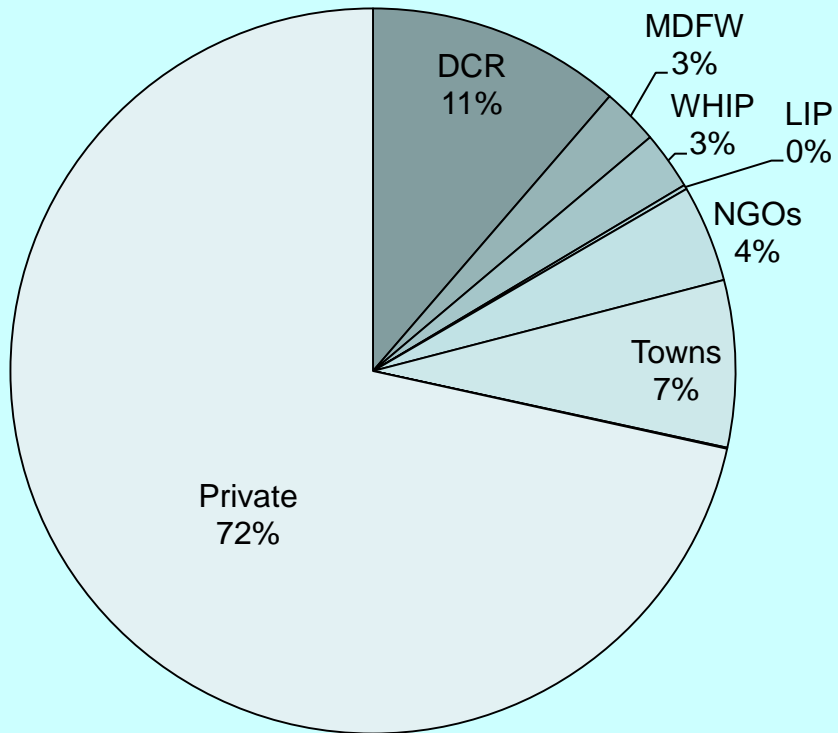
Shrubland habitat

Who is maintaining it?

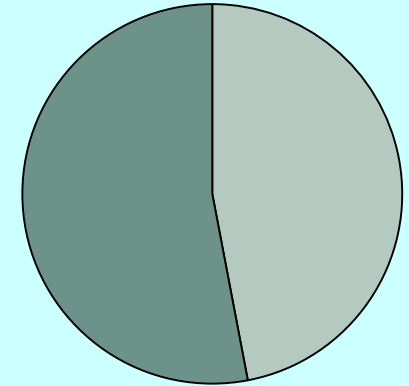


Shrubland habitat

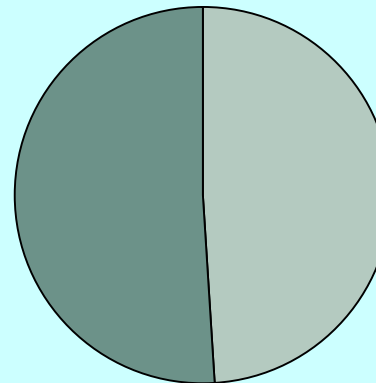
Who is maintaining it?



Indigo Bunting



Field Sparrow



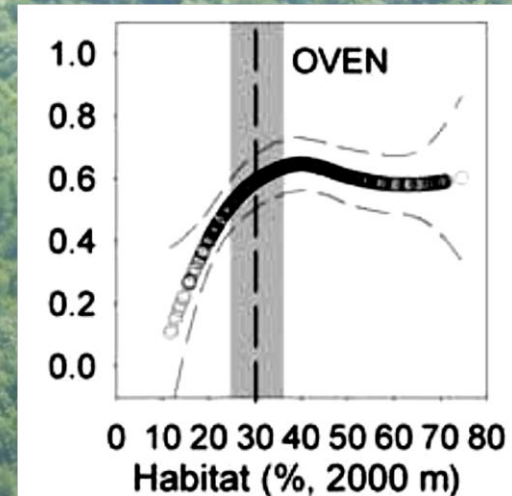
□ Deliberate ■ Incidental

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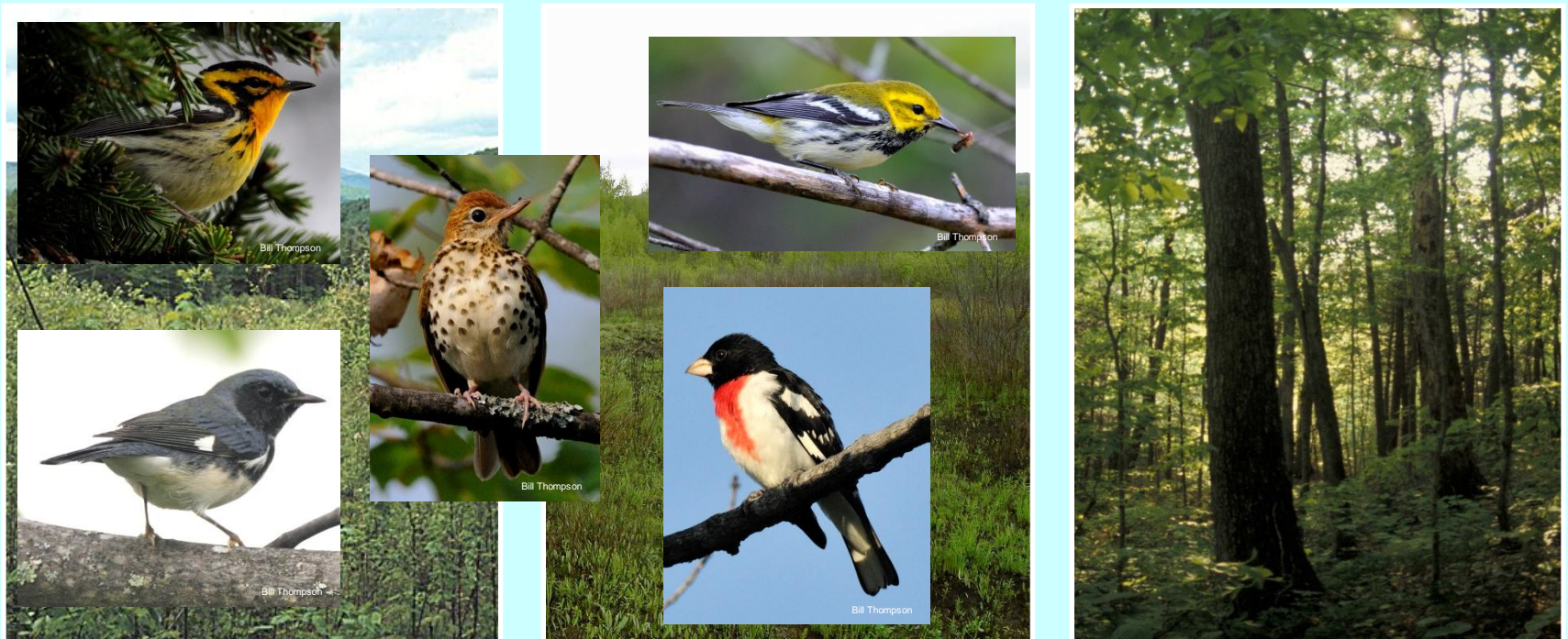
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- Examining the rationale for shrubland bird conservation
- Can natural disturbance support these species?
- How important is deliberate management?
- Is shrubland management compatible with conservation of mature forest birds?

Forestry and Forest Birds

Forest cover in Mass above threshold for fragmentation effects



Mature forest birds select shrublands during the postfledging period



Chandler, C. C., D. I. King, and R. B. Chandler. 2012. Forest Ecology and Management 264:1–9

What does the science say?

- Shrublands and shrubland species are legitimate subjects of conservation concern.
- Natural disturbance cannot be counted on to sustain shrubland wildlife populations.
- Intentional management is more effective than other forms of habitat creation.
- Shrubland management can be compatible with conservation of mature forest birds.